

# powerbass®

A u t o S o u n d



**PS-WB101**  
**PS-WB121**

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## **SINGLE SUBWOOFER BASS REFLEX SYSTEM**

# **Application & Enclosure Guide**

*Please read through this manual to familiarize yourself with your new subwoofer. Should your PowerBass Autosound Subwoofer System ever require service, you will need to have the original dated receipt.*



### Thank you and Congratulations

Congratulations on your purchase of a PowerBass Autosound speaker system. You now own a speaker of uncompromising design and engineering from a factory that truly believes in the relentless pursuit of perfection. Incorporating the highest quality parts and state-of-the-art materials, these speakers display the ultimate balance between high fidelity, performance and long-lasting reliability.



At PowerBass USA, Inc. we are confident you will have many years of outstanding enjoyment from this great SPEAKER investment. For maximum performance we recommend that you have your new PowerBass Autosound product installed by an Authorized PowerBass Autosound Dealer.

To learn more about PowerBass, please visit us on the World Wide Web at  
<http://www.powerbassusa.com>

#### Δ Warning Δ

Continuous exposure to sound pressure levels in excess of 100 dB can cause permanent hearing loss. PowerBass Autosound Speakers are capable of producing sound pressure levels well over 170 dB. Please observe all local sound ordinances while listening to your PowerBass Autosound system. PowerBass USA, Inc. accepts no liability for hearing loss, bodily injury, or property damage due to the result of use or misuse of this product.

## **POWERBASS AUTOSOUND LOADED ENCLOSURE FEATURES**

**Heavy-duty Box Design:** The enclosure is constructed from non-resonant 5/8" panels that have been glued, braced and sealed. Each box is finished in a stylish two tone RFG aviation grade vinyl covering.

**Bass Reflex Single Port System:** Utilizing a Bass Reflex design offers increased efficiency at low frequencies. To accomplish this, a flared Venturi port tube is used for exact tuning and virtually zero port noise (breathing) resulting in clean tight bass.

**2-layer Black Ribbed Paper, DDC Finish Cone:** The choice of cone materials has everything to do with the difference between good and great sound. Paper delivers one of the warmest sounds available along with the DDC (Dynamic Damping Coating) finish to give your music uncompromised fidelity.

**BASV High Temperature Voice Coil:** These specially designed resin coated high temperature voice coils measure a full 2-inches in diameter to ensure high power handling and precise linear excursion while maximizing thermal heat dissipation.

**Double Pressed And Treated Foam Surround:** The high damping, double rolled foam surround on these speakers ensure linear travel throughout the entire frequency range resulting in more bass output and higher efficiency while reducing distortion.

**Computer Optimized Acoustic Chamber:** Perfectly tuned for the car environment. This box is optimized for a tight and accurate bass response.

# SPECIFICATIONS FOR PS SERIES SPEAKER SYSTEM

(Due to Constant Improvements, Specifications and Parameters are subject to change without notice.)

Model	Size	System Impedance	Frequency Response	Sensitivity 1W/1M	Magnet Size	Voice Coil Dia.	Power RMS/Peak
PS-WB101	Single 10"	4-ohm	33Hz-150Hz	96dB	40 oz.	2.0"	250W/500W
PS-WB121	Single 12"	4-ohm	30Hz-120Hz	98dB	40 oz.	2.0"	275W/550W

## UNPACKING THE ENCLOSURE

Every attempt has been made to transport your new PowerBass Bass Reflex subwoofer system safely. Carefully unpack the enclosure and inspect it thoroughly for any damage that may have occurred during shipping. Notify your local PowerBass dealer immediately should you notice any damage prior to installing the unit. Be sure to keep the carton and packing material until your system is operational. The original boxes will do the best job of protecting your speaker system if they need to be transported.

## INSTALLATION EXPERIENCE

Installation of PowerBass Autosound Speakers requires experience with a variety of mechanical and electrical procedures. This manual only provides general installation and operating instructions. If you have any reservations about your installation skills or lack the proper tools, please contact your local PowerBass Autosound dealer for assistance.

## **ENCLOSURE PLACEMENT TIPS AND RECOMMENDATIONS**

Your PowerBass Bass Reflex Subwoofer system accurately reproduces the lowest portion of the audible frequency range, which is generally considered to be non-directional. As such, the placement within the vehicle is not as critical to achieve good sound reproduction as with full range systems. Typical locations include sedan and hatchback trunks and rear cargo areas of vans, mini-vans and utility vehicles.

The following placement recommendations and installation tips are the result of many hours of development and experimentation. These examples are provided to you as a guide line. Please feel free to experiment yourself as you may find that other placements can provide you with superior results.

- Make sure all moving parts and factory electrical wires are out of your way and will not interfere after installation.
- Leave a little slack in the wire to prevent pulling or stretching, this is even more important if the wires will be run under or through the factory interior.
- Use cable ties and wire clamps to prevent the wires from getting caught or shorted.
- We do not recommend placing or installing loaded enclosures where they might be subjected to moisture.
- Correct subwoofer polarity must be observed. The polarity positive side is marked by a (+) sign. Subwoofers wired out of phase will produce little bass.
- Speaker wires should be electrically and physically isolated from the vehicle and routed away from any factory wiring that carries high currents or noise (ie, ABS brake systems and engine computer signals).
- Use speaker wire large enough to carry the full power of your amplifier. 14-gauge or larger should be adequate. (Speaker wire not included)

Your PowerBass Bass Reflex subwoofer system needs to be installed some place where it can operate efficiently and not endanger the occupants of the vehicle.

The location and orientation of your enclosure will affect the quality and quantity of the bass. The port tube (vent) openings cannot be obstructed. At some frequencies most of the bass will come out of the port tube. Therefore we recommend you leave at least 3-inches (7.62cm) between the port tube openings and interior surfaces such as side panels, seats and doors.

If the enclosure is to be mounted all the way in the back of the vehicle, it works best to point the woofer toward the front of the vehicle. Conversely, if the enclosure is going to be mounted closer to the back seat, pointing the woofer toward the rear of the vehicle will give you the best results. Even when the enclosure is placed inside a car trunk with no opening to the passenger compartment, the Bass Reflex design will produce strong and full bass.

**WARNING:** Permanent mounting is not only the safest installation, but usually produces the best sound quality. This custom enclosure is heavy and has a smooth surface finish, which may slide around during aggressive driving, sudden stops or road vibration. To avoid vehicle damage or personal injury please ensure that the enclosure is securely mounted to a surface with adequate strength and rigidity to support it.

## WIRING AND CONNECTIONS

The PowerBass Bass Reflex subwoofer system consists of a single 4-ohm voice coil woofer. Check to see that your amplifier is optimized to drive this load.

A single spring loaded push terminal cup provides a quick and easy connection from your bass amplifier to your Bass Reflex system

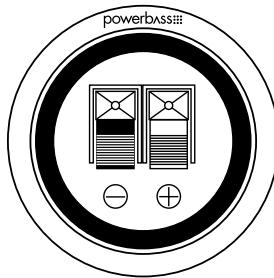


Fig.1

The push terminal input cup is located on the side of the enclosure (Fig 1). For a bare wire connection, strip 1/2 inch (12.7mm) of insulation from each of the two conductors of your speaker wire (not included) to expose bare metal (Fig 2). Carefully twist each of the conductors to eliminate any frayed ends. Push open both terminals, line up the holes, and insert the wires from your amplifier as follows: Positive wire (+) to the Red terminal, Negative wire (-) to the Black terminal. Be careful not to insert the insulated part of the wire into the hole as this will not give you a good connection.

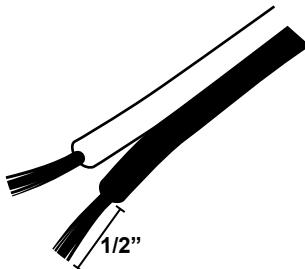


Fig.2

## SOUND CHECK

Your PowerBass Bass Reflex Subwoofer system will operate at optimum performance after a break-in period. Allow the system to play 20 to 30 hours at moderate levels. To sufficiently drive either the Single Woofer 10 or 12-inch system, we recommend using an amplifier with at least 150 watts RMS mono output.

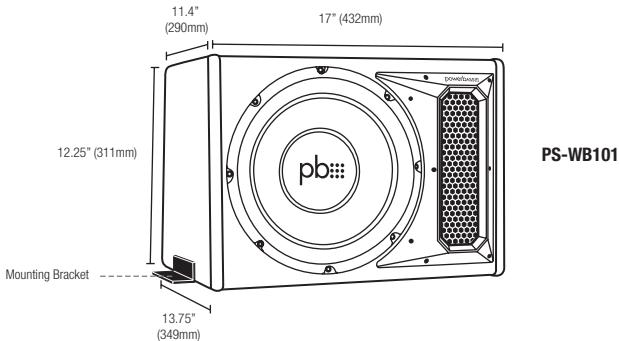
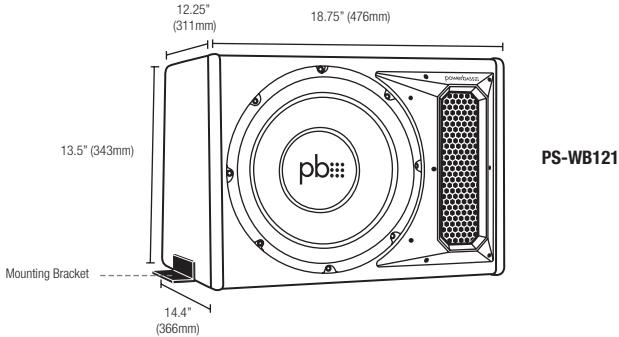
**CAUTION:** Damage to the woofers can occur when an amplifier, regardless of its wattage, is made to play at higher listening levels than its power can clearly produce (usually beyond the “1 to 2 o’clock” position on the volume control). This results in very high levels of audible distortion. Contrary to popular belief, a speaker is more likely to be damaged by trying to get too much volume from a low-powered amp than from a high-powered amp.

**NOTE:** Lack of bass output is usually caused by the subwoofer being out of phase with reference to the rest of the system. In this case reversing the speaker connection from positive to negative on the terminal cup will correct the problem.

## CARE AND CLEANING

The enclosure is constructed of the same non-resonant material used for premium quality home audio speakers, but covered in vinyl instead of veneer. A damp cloth is best to wipe down any dirt on its surface. Avoid using strong cleaners that may discolor the vinyl wrap. Never apply water or cleaner to the woofer cones.

# ENCLOSURE DIMENSIONS AND SPECIFICATIONS



## WARRANTY NOTES

Should a warranty issue arise with our complete subwoofer enclosure PowerBass will replace the defective woofers only. Do not send the entire enclosure, unless the enclosure is defective itself. PowerBass does not warranty the cosmetics of the enclosure once installed in the vehicle.



**Product Disposal** – Certain international, national and/or local laws and/or regulations may apply regarding the disposal of this product. For further detailed information, please contact the retailer where you purchased this product or the PowerBass Importer/Distributor in your country.

# POWERBASS AUTOSOUND LIMITED WARRANTY POLICY

PowerBass USA, Inc. offers limited warranty on PowerBass products under normal use on the following terms:

**PowerBass Autosound Speakers are to be free of defects in material and workmanship for a period of one (1) year.**

This warranty applies only to PowerBass products sold to consumers by Authorized PowerBass Dealers in the United States of America. Products purchased by consumers from a PowerBass dealer in another country are covered only by that country's Distributor and not by PowerBass USA.

This warranty covers only the original purchaser of PowerBass product. In order to receive service, the purchaser must provide PowerBass with a valid purchase receipt from an authorized reseller stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at PowerBass's discretion and will not be liable for incidental or consequential damages. PowerBass will not warranty this product under the following situations:

- **Speakers received with bent frames or water damage**
- **Abuse such as holes in the cone, surround or ripped spider**
- **Voice coil damage due to amplifier clipping or distortion**
- **Product that has not been installed according to this owners manual**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for PowerBass any other liability in connection with the sale of this product.

**Please call (909) 923-3868 for PowerBass Customer Service.** You must obtain an RA# (Return Authorization Number) to return any product to PowerBass. **The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused.** Please pack your return carefully; we are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus \$12.00 for handling and diagnostic evaluation to:

**PowerBass USA, Inc.,  
Attn: Returns (RA# \_\_\_\_\_)  
2133 South Green Privado, Ontario, CA 91761**

Residents of HI, AK and US territories will be charged for return shipping. All inquires regarding service and warranty should be sent to the above address.

**Removed or altered serial numbers will void this warranty**

**NOTE: Return only the part(s) that must be repaired or replaced. Do not send the entire system! It will only cause unnecessary delays and may result in damage that is not covered by this warranty.**



PowerBass Autosound – A division of PowerBass USA, Inc.

2133 South Green Privado – Ontario, CA 91761

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**[www.powerbassusa.com](http://www.powerbassusa.com)**